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STEVEN J. ROCCI
WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP
ONE LIBERTY PLACE - 46TH FLOOR
PHILADELPHIA, PA 19103

EXAMINER	
FLEURANTIN, JEAN B	
ART UNIT	**PAPER NUMBER**
2172	

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/515,037	BERGSTRAESSER ET AL.	
	Examiner	Art Unit	
	Jean B Fleurantin	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 37-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 37-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. Claims 37-51 are added.

Claims 1-16 and 37-51 are remained pending for examination.

Response to Applicant' Remarks

2. Applicant's arguments filed July 17, 2003 have been fully considered but they are not persuasive. Examiner discuses the limitations of 37-51 in the following rejection.

Applicant stated on page 9, that Chou does not disclose or teach "setting a start version field in a second data structure to a value representing a new version of the object; and setting an end version field in the second data structure to a value representing a most recent version of the object." It is respectively submitted that Chou discloses the version-derivation hierarchy of a design object is recorded in a version table associated with the object, in which version table consists of a default version number (start version), and a next version number (end version). Furthermore, during patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecussion and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

In response to applicant's argument on pages 12-14, that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of

ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument on page 14, that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, however, Chou discloses a default version number and a next version number in which a version count and a set version descriptors one for each version existing version on the version derivation hierarchy of the object, (see page 341, col. 2, lines 6-10). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teaching of Chou with wherein the second and third field define a range of versions of an object identified by the first field having the property value in the fourth field. Such modification would allow the teachings of Chou to improve the accuracy and the reliability of the versions and workspaces in an object repository, and to provide user to specify a particular version on the version derivation hierarchy, (see page 339, col. 1, lines 62-63).

Claim Rejections - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 8-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Chou et al. 'A Unifying Framework for Version Control in a CAD Environment - 8/1998', submitted by the Applicant.

As per claims 1 and 8, Chou discloses a computerized method for updating a version of an object having a property, the method comprises receiving an updated value for the property (see page 338, col. 1, lines 7-8, as it can be updated by the designer who created it). Further, in page 337, column 2, lines 61-63, Chou discloses after the initial creation of a design object new versions of the object can be derived from it and new versions can in turn be derived from them;

setting an end version field in a first data structure to a value representing a predecessor version of the object (see page 340, col. 1, lines 30-32, as the version of schema for V must precede V if the version of the schema does not already reside in the database to which V is being sent);

creating a second data structure (see page 340, col. 1, lines 18-21, as the schema must exist in both the public database and private database in which the transient version has been created);

setting a start version field in the second data structure to a value representing a new

version of the object (see page 340, col. 1, lines 18-21, as designer creates a transient version by checking out a version he may modify the schema for the transient version, then the original version and the transient version will use different schemas). Further, in page 341, column 2, line 6, Chou teaches a default version number; and

setting an end version field in the second data structure to a value representing a most recent version of the object (see page 340, col. 1, lines 16-21, as the version of schema used for version Vi of a design object may be different from that used for version Vj derived from Vi, after a designer creates a transient version by checking out a version he may modify the schema for the transient version, then the original version and the transient version will use different schemas).

As per claims 2 and 9, Chou further discloses, setting a property value field to the updated value (see page 342, col. 1, lines 10-13, as a new reference version V is created the name of the version that references version V is appended to the inverted references list of version).

As per claims 3 and 10, Chou discloses, wherein the value representing the most recent version is infinity, (see page 340, col. 1, lines 55-61).

As per claims 4 and 11, Chou discloses, wherein the data structure is a row in a database, (see page 341, col. 2, lines 39-44).

As per claims 5 and 12, Chou discloses, wherein the object is a COM (Component Object Model) object (see page 337, col. 2, lines 40-42, as a component object may be referenced by any number of other objects).

As per claims 13 and 15, in addition to the discussion in claim 1, Chou further discloses a method for propagating a relationship of a predecessor object to a successor object, said relationship having an origin object and a destination object, the method comprises reading a propagation flag on the relationship (see page 340, col. 2, lines 9-12, as the system simply updates data structures that it maintains so that affected users will become aware of changes in a version only when they explicitly access the version, the flag based approach is necessarily a deferred notification strategy); and

if the propagation flag is set then performing the tasks of determining if a new version of the destination object has been added (see page 340, col. 2, lines 9-25, as the system simply updates data structures that it maintains so that affected users will become aware of changes in a version only when they explicitly access the version, the flag based approach is necessarily a deferred notification strategy, an object has a number of change notification options at its disposal and types of changes to post notification 'creation of a new version).

As per claims 14 and 16, Chou discloses the computerized method, wherein the predecessor object and the successor object are COM objects (see page 337, col. 2, lines 40-42, as a component object may be referenced by any number of other objects).

As per claim 37, Chou discloses, wherein the start version field and the end version field define a range of versions for which a value of the property of the object has the same value, (see page 340, col. 1, lines 25-27).

As per claim 43, Chou discloses, wherein the start version field and the end version field of a respective data structure define a range of versions for which a value of the property of the object has the same value, (see page 341, col. 2, lines 6-7).

As per claim 44, Chou discloses, wherein. if the propagation flag is set, the relationship is not copied to the new version, (see page 340, col. 2, lines 9-13).

As per claim 45, Chou discloses, wherein reading a propagation flag on the relationship involves reading a relationship type field of a relationship table, the relationship table including an object identifier, a branch identifier, a start-version identifier, and an end version identifier, (see page 341, col. 2, lines 39-49).

As per claim 46, Chou discloses, wherein, when creating the new version, if the new version and a predecessor version are on the same branch, as indicated by the branch identifier, and the end-version identifier is infinity, the relationship is copied without updating the relationship table, (see page 341, col. 2, lines 39-49).

As per claim 47, Chou discloses, wherein a new row of the relationship table is created when a new branch is created, as indicated by the branch identifier, (see page 342, col. 2, lines 4-5).

As per claim 48, Chou discloses, wherein, if the propagation flag is set, the relationship is not copied to the new version, (see page 340, col. 2, lines 9-13).

As per claim 49, Chou discloses, wherein reading a propagation flag on the relationship involves reading a relationship type field of a relationship table, the relationship table including an object identifier, a branch identifier, a start-version identifier, and an end-version identifier, (see page 341, col. 2, lines 5-9) and (see page 341, col. 2, lines 39-49).

As per claim 50, Chou discloses, wherein, when creating a new version, if the new version and a predecessor version are on the same branch, as indicated by the branch identifier,

and the end-version identifier is infinity, a relationship is copied without updating the relationship table, (see page 341, col. 2, lines 39-49).

As per claim 51, Chou discloses, wherein a new row of the relationship table is created when a new branch is created, as indicated by the branch identifier, (see page 342, col. 2, lines 4-6).

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al. 'A Unifying Framework for Version Control in a CAD Environment - 8/1998', submitted by the Applicant.

As per claim 6, in addition to the discussion in claim 1, Chou further discloses a computer readable medium having a data structure stored thereon (see page 338, col. 1, lines 11-14), the medium comprises a first field comprising a key for the data structure (see page 342, col. 2, lines 4-6, as a means for using the object name as a key the hash table returns a pointer to the version table associated with the object);

a third field comprising an end version identifier (see page 341, col. 2, line 7, as a next version number). Further, page 339, in column 1, lines 12 through 21, Chou discloses versions

on a derivation hierarchy in a particular database are assigned monotonically increasing integers in the order of their creation;

a fourth field comprising a property value (see page 342, col. 1, lines 9-13, as we need to maintain for each version V when a new reference version V is created the name of the version that references version V is appended to the inverted references list of version). Chou does not explicitly disclose wherein the second and third field defines a range of versions of an object identified by the first field having the property value in the fourth field. However, Chou discloses a default version number and a next version number in which a version count and a set version descriptors one for each version existing version on the version derivation hierarchy of the object, (see page 341, col. 2, lines 6-10). Further, in page 340, column 1, lines 16-21, Chou discloses the version of schema used for version Vi of a design object may be different from that used for version Vj derived from Vi, after a designer creates a transient version by checking out a version he may modify the schema for the transient version, then the original version and the transient version will use different schemas. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teaching of Chou with wherein the second and third field define a range of versions of an object identified by the first field having the property value in the fourth field. This modification would allow the teachings of Chou to improve the accuracy and the reliability of the versions and workspaces in an object repository, and to provide user to specify a particular version on the version derivation hierarchy, (see page 339, col. 1, lines 62-63).

As per claim 7, Chou teaches a computer-readable, wherein the first field comprises an object identifier and a branch identifier, (see page 339, col. 1, lines 19-21).

As per claim 38, Chou discloses, wherein the objects and properties are only copied to the data structure when a property value of a respective object changes, (see page 340, col. 1, lines 25-27).

As per claim 39, Chou discloses, wherein the first field includes an object identifier, a branch identifier, and a start-version identifier, (page 341, col. 2, lines 11-15).

As per claim 40, Chou discloses, wherein the data structure represents an object property table of an object repository and includes values for a plurality of properties included in a respective object, a version of the object represented in the object property table being indicated by the key, (see page 341, col. 2, lines 11-15).

As per claim 41, Chou discloses, wherein the object identifier indicates a row in the object property table, (see page 342, col. 2, lines 4-6).

As per claim 42, Chou discloses, wherein the branch identifier indicates a branch within a particular version of the object, the branch being formed when a new successor object is created from a predecessor object having at least one other successor object, (see page 341, col. 2, lines 14-15).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

6. Any inquiry concerning this communication from examiner should be directed to Jean Bolte Fleurantin at (703) 308-6718. The examiner can normally be reached on Monday through Friday from 7:30 A.M. to 6:00 P.M.

If any attempt to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Mrs. KIM VU can be reached at **(703) 305-8449.** The FAX phone numbers for the Group 2100 Customer Service Center are: ***After Final* (703) 746-7238**, ***Official* (703) 746-7239**, and ***Non-Official (703) 746-7240***. NOTE: Documents transmitted by facsimile will be entered as official documents on the file wrapper unless clearly marked "***DRAFT***".

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2100 Customer Service Center receptionist whose telephone numbers are **(703) 306-5631, (703) 306-5632, (703) 306-5633**.

Jean Bolte Fleurantin

September 26, 2003

JBF/

SHAHID ALAM
PRIMARY EXAMINER